EXHIBITIONS AND NOTICES.

February 21, 1911.

Dr. A. SMITH WOODWARD, F.R.S., Vice-President, in the Chair.

THE SECRETARY read the following report on the additions made to the Society's Menagerie during the month of January last:—

The registered additions to the Society's Menagerie during the month of January were 121 in number. Of these 63 were acquired by presentation, 17 by purchase, 32 were received on deposit, 5 in exchange, and 4 were born in the Gardens.

The total number of departures during the month, by death and removals, was 160.

Amongst the additions special attention may be called to the following :—

2 Lion Cubs (*Felis leo*), from the Sebakwe River, S. Rhodesia, presented to the King's South-African Collection, through H.R.H. The Duke of Connaught, K.G., by Col. Weston Jarvis. Deposited by H.M. THE KING on Jan. 14th.

1 Jaguar (Felis onca), born in the Gardens on Jan 24th.

2 Bay Duikers (*Cephalophus dorsalis*), from Coomassie, presented by Capt. S. H. Chapin on Jan 21st.

2 Virginian Deer (*Dorcelaphus americanus*) $\mathcal{Q} \mathcal{Q}$, from North America, purchased on Jan 17th.

1 Nacunda Nightjar (*Podager nacunda*), captured at sea off the coast of Brazil, new to the Collection, purchased on Jan 2nd.

1 Bornean Fireback Pheasant (*Lophura ignita*), presented by H.G. The Duke of Bedford, K.G., Pres.Z.S., on Jan 21st.

Dr. H. HAMMOND SMITH, M.R.C.S., F.Z.S., exhibited three skins of male Pheasants assuming female plumage, sent to him by Mr. Arthur Gilbey, and some microscopical specimens of the glands prepared by Dr. S. G. Shattock.

Mr. G. A. BOULENGER, F.R.S., V.P.Z.S., contributed a paper based on a collection of Fishes from the Lake Ngami Basin, Bechuanaland, made by Mr. R. B. Woosnam, F.Z.S.

This paper has been published in the 'Transactions.'

Mr. ALFRED H. COCKS, M.A., F.Z.S., exhibited a series of photographs of the female Brindled Gnu recently born in the Society's Gardens, and gave the following account of its growth and coloration :---

"On receipt of the orphan calf of the Brindled Gnu, born in

the Gardens on the 1st December last, which was brought to me on the 3rd, I was struck by the great difference between her and the drawing by J. Smit in P. Z. S. 1900, Plate xlviii. (facing p. 771), representing another calf previously born here; that figure, and one in 'Illustrations of the Zoology of South Africa,' &c., by Andrew Smith, M.D., London, 1849, No. 16, Aug. 1842, Plate xxxvii.*, being, I believe, the only two existing of a Gnu calf of this species.

Text-fig. 97.



Young Brindled Gnu born in the Society's Gardens on December 1, 1910. From a photograph taken on January 7, 1911.

"What seemed specially worthy of note was that the tail for the proximal two-thirds of its length was white, as if the white-

* The beginning of A. Smith's description of the young is quaint: "Form and appearance clumsy and unseemly "!

tailed species were the older form. The body-colour was also quite different from that shown in Smit's plate, being of the lustreless ash-brown of an immature house-mouse, with a dull or rusty black dorsal stripe terminating in a point at the sacrum. The cheeks instead of being smooth and matching the body in colour, as shown in both the above-mentioned plates, were exactly the reverse. The dark colour on the outer side of the ears did not

Text-fig. 98.



Head of young Brindled Gnu.

From a photograph taken on January 7, 1911.

quite reach the margins, as if a man had taken a brushful of paint, and had given one streak to each ear, without afterwards making good the deficiencies. The lower two-thirds of all four legs was quite white; Andrew Smith's plate shows this conspicuously. The whole face was very dark or black, the black extending to a sharply defined width of about half an inch round the lower side of the eyes. "By the 13th December (that is, when the calf was twelve days old), the whole of the upper side of the body was a *light* fawn (the original 'puppy coat' having been shed); the legs were gradually colouring, or less pure, or conspicuously white, than at first; and the colour was extending from above downwards. The white on the tail was already nearly gone. Face dark; nose and muzzle, as before, black; cheeks quite light, the dark ring remaining round the eyes. The coloration of the exterior of the ears as before.

"In Smit's plate the fawn of the body is darker, and more mixed with black-tipped hairs, and the drawing was evidently made at a greater age * than the present example attained to, not only for the reason just stated, but because the tail-tuft is of a brighter black, the dark circle round the eyes is shown as the faintest possible shadow, and the general figure of the animal is more set; but the most important discrepancy—which seems only explicable on the supposition that the present example belonged to a local race widely differing from the two calves previously figured.---is that both plates show quite a smooth cheek, whereas the present example, like her father (and I feel sure the mother was the same), had a perfect and very conspicuous 'Newgate fringe,' consisting of a woolly moustache, like a poodle's, but situated about halfway along the gape, and quite distinct from the moustachial bristles on the muzzle, meeting bushy whiskers on the cheeks, and continued as a long thick beard on the chin; the whole cheek was hirsute, or covered with long hairs projecting in a more or less upward direction.

"By the 16th the horns were appearing through the skin, and she had cut some molar teeth, which we could hear her grinding, so we tied up a wisp of hay, and she very soon learnt that it was good to eat. The tail now much resembled that of the Grey Squirrels so familiar in the Park, with the addition of a black tuft.

"By the 27th the dark ring below the eyes was fading away.

"On the 14th January the horns were about an inch long; and on the lower surface of the chin, between lip and Newgate fringe, but hardly extending to the side face, was a white patch, which I had not previously noticed.

"On the 15th the calf appeared as vigorous and in as perfect health as ever, but on the morning of the 16th she lay prostrate, and in a very short time was dead; the cause, as decided by Mr. Plimmer, the Society's pathologist, being broncho-pneumonia.

"The Gnu was photographed, by myself, on December 13, on December 31 and January 2, by Press photographers, and on January 7, by request of Dr. Chalmers Mitchell, by a Henley photographer; the series to some extent shows the growth.

^{*} No hint is given (*loc. cit.*) as to the age of the calf when drawn, but it was born on July 14, and the drawing exhibited on November 20.

"I took the following measurements immediately after death:— Extreme length, tip of nose to tip of tail (=vertebræ), 4ft. $1\frac{1}{2}$ ins. Length of face, $11\frac{1}{8}$ ins.

- \dots ear, $5\frac{3}{8}$ ins.
- ., tail (to end of vertebræ), 11 ins.
- , fore leg (elbow to end of toe), $22\frac{7}{8}$ ins.
- ", hind leg (hock to end of toe), $15\frac{1}{4}$ ins."

PAPERS.

Report on the Deaths which occurred in the Zoological Gardens during 1910. By H. G. PLIMMER, F.R.S., F.Z.S., Pres.R.M.S., Pathologist to the Society.

[Received February 6, 1911 : Read February 21, 1911.]

On January 1, 1910, the number of animals in the Zoological Gardens was 3186, and during the year 2354 animals were admitted, making a total of 5540 for the year.

The number of deaths during the year has been 1554, that is a death-rate of 28 per cent.; but if from the above total we deduct 643 animals which did not live for six months after their arrival in the Gardens—that is, roughly, the time at which we find they have either got over their journeys, or died from any disease they brought with them, or have got entirely used to their new environment—the percentage of deaths is reduced to 16.4, which is less than that of the last two years.

The following figures will show the general relations of the last three years :---

	1908.	1909.	1910.
Total number of animals	5608	5303	5540
Total deaths	1737	1492	1554
Percentage of deaths	31	28	28
Percentage of deaths, excluding			
those which occurred in ani-			
mals which had <i>not</i> been six			
months in the Gardens	17	17.8	16.4

If we consider the weather conditions of 1910, and compare these figures (bearing in mind the relative number of animals), it will be seen that the percentage of deaths of 1910 is more satisfactory than that of the two preceding years.

The total deaths are divided as follows: Mammals 362, Birds 845, Reptiles 347.

The following tables show the facts ascertained in outline. Table I. sets forth the actual causes of death in each of the three groups specified. Under Reptiles are included Batrachians and Fishes.